

April 1998

MAINTENANCE BULLETIN



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STATEMENT OF CERTIFICATION

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The best information available has
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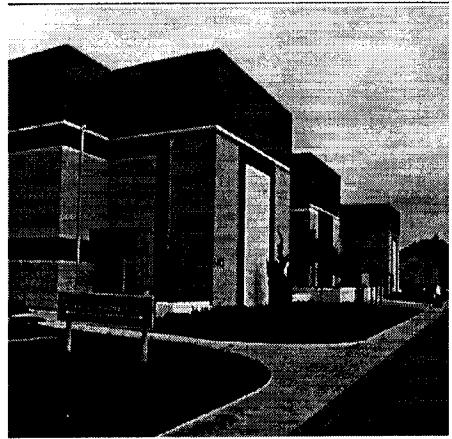


SEABEE LOGISTICS CENTER

4111 San Pedro Street
Building 1443
Port Hueneme, CA 93043-4410

UPDATES

By EOC Dale Kusnereik



Seabee Logistics Center (SLC)
Building 1443

The 27th of January 1998 marked an important milestone for NAVFAC's role in Seabee support. To commemorate this momentous event RADM Nash (Chief of Civil Engineer Corps), assisted by CAPT Barker (SLC Director) and Mr. Paul DeFreitas (SLC Business Manager), unveiled the new SLC sign that officially established the **Seabee Logistics Center (SLC)**, and disestablished the Civil Engineer Support Office. In addition, the SLC will be realigned under NAVFAC, while CBC Port Hueneme will be placed under the cognizance of PACFLT. As a result of this realignment, the SLC has restructured itself to ensure its relevance to current and future requirements, and to streamline the elements of logistics that work together in supporting the Naval Construction Force during any situation.

General Information

Most Maintenance Bulletin issues have a list of NSN changes for your COSALs. These changes, which include both adds and deletes, must be implemented in your COSAL if they apply. Mark the changes in the

COSAL, and indicate on the Maintenance Bulletin that these changes have been carried out. Your repair parts support will only be as effective as the accuracy of your COSAL data and the relevancy of its contents to your equipment.

In order to minimize the cost of circulating this publication, we are moving towards a paperless information-exchange system. Starting with our next issue, we will post the Maintenance Bulletin on our web page so that units with internet capabilities can just access or download this publication through their PC. Our internet address is: (<http://www.ceso.navy.mil>). However, if you do not have this capability yet, please let me know so that I can leave your address in our circulation addressee list, and we will continue sending you a hard-copy version by mail.

Points of Contact

As a result of the SLC's recent reorganization, the following POC's and telephone numbers are provided:

<u>Name</u>	<u>Function</u>	<u>DSN (551)</u>	<u>E-mail Address</u>
CMC Holmes	POL/Maint	1922	SHOLMES@CBPH.NAVY.MIL
EOC Kusnerek	Maint. Bulletin	1910	DKUSNIEREK@CBPH.NAVY.MIL
Cindy Schwieder	Tech Manuals/ Decals	1918	CSCHWIEDER@CBPH.NAVY.MIL
Bill Mauzey	COSAL/APL	1913	BMAUZEY@CBPH.NAVY.MIL
Joe Mitchell	COSAL	1851	JMITCHELL@CBPH.NAVY.MIL
Judith Takahara	SAMMS/ Projects	1822	JTAKAHARA@CBPH.NAVY.MIL
Juan Alamares	Tools (80000-Series Kits)	1925	JALAMARES@CBCPH.NAVY.MIL

EQUIPMENT OFFICER'S TECHNICAL BULLETIN NUMBER 5-97

Subj: PROPER USE OF ALTERNATE POWER GENERATION SOURCES

Ref: (a) Applicable Operator Manuals

1. The issue of utilizing Light Plants, Arc Welding Trailers, and the 10KW Skid Mounted Generator (EC512121) as alternate power sources has long been a controversy. The purpose of this Technical Bulletin is to establish current policy. This Bulletin supersedes any previously disseminated guidance concerning alternate power sources.
2. The Light Plants range from 5KW to 7KW. They may be used as alternate power sources as long as the TOTAL LOAD (including lights powered by the unit) DOES NOT EXCEED THE RATED CAPACITY OF THE UNIT. Always follow the Operators Manual for proper procedures, ground resistance testing and safety requirements.
3. The Welding Trailers SHOULD NEVER BE USED AS ALTERNATE POWER SOURCES. Miller has amended their Operators Manual to reflect the policy that we have had all along. The only authorized use of 110/220 V duplex receptacle is to support actual welding operations i.e., powering a portable MIG unit that is working in conjunction with the primary welder. Improper utilization in the past has caused damage to our welding trailers and can cause personal injury or death.
4. The organic 10KW Skid Mounted Generator (EC 512121) is CESE that is assigned to support the REFRIGERATION UNITS ONLY. Using them as an alternate power source could degrade readiness and is NOT RECOMMENDED.
5. This Technical Bulletin will remain in effect until canceled or superseded.

Note: Special thanks to EQCM (SCW) J. C. Domogalla, THIRD NCB Det. Port Hueneme CA

Tactical Truck:

Seatbelt Kits are available for retrofit in your 2½ Ton and 5 Tons. The NSN's are:

1. 2½ Ton and M809 5 Ton Kit 2540-01-245-2444 9C D EA @ \$98.45
2. M939 5 Ton Kit 2540-01-256-5331 9C D KT @ \$90.17

Point of contact at Seabee Logistic Center (SLC) is Bill Mauzey, Code 15L1BEM, DSN 551-1913 or Commercial (805) 982-1913

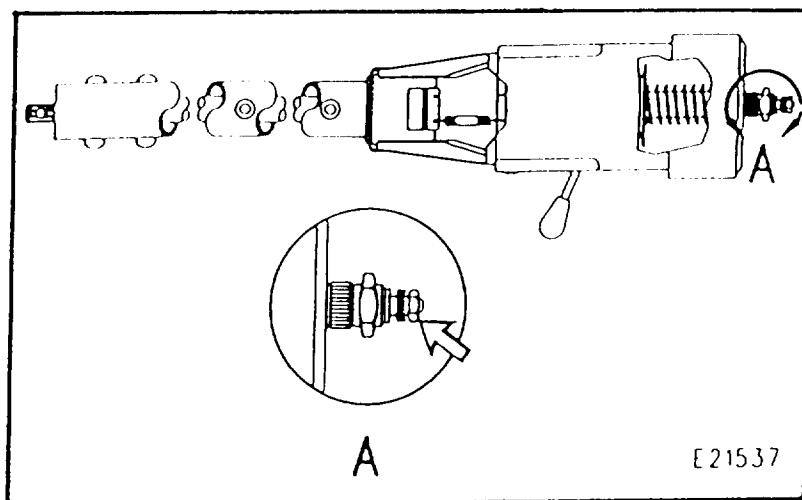
CATERPILLER SERVICE UPDATES

PROCEDURE TO IMPROVE TELESCOPING STEERING COLUMN LOCKING FUNCTION

613C Series II (8LJ1-1634),

615C Series II (9XG1-999) Wheel Tractors

If problems with the locking function of the telescopic steering column are experienced, the 6H-5431 Jam Nut can be removed, 7M-7260 Thread Sealant added, and then install the Jam nut to a torque of 13 plus/minus 3N·m (10 plus/minus 2lb ft.)



2T-3224 Steering Column Group
Arrow depicts 6H-5431 Jam Nut and location for 7M-7260
Thread Sealant

New Water Valve Assembly and New Board Control Assembly That Improve Reliability Of HVAC System Are Available

7320, 7309, 7304, 7337, 7311

**D11N (4HK),
613C (8LJ)
621F (8PL, 4SK),
627F (1DL) Tractor-Scrapers;**

A new water valve assembly (2) and a new board control assembly (module assembly) (1) improve the reliability of the HVAC system. The new water valve assembly (2) and new board control assembly (module assembly) (1) are direct replacements for the former water valve assembly and board control assembly.

The cab heater water valve is electronically controlled on these models. The setting of a potentiometer (temperature selector knob) (F) determines the position of the water valve in the heater. The board control assembly (module assembly) (1) is an electronic control that controls the position of the water valve assembly (2), according to an input from the potentiometer. The potentiometer is the temperature selector which the operator may adjust.

The water valve assembly (2) is a rotary water valve controlled by a DC motor. The water valve has an internal feedback potentiometer (2a) (approximately 5000 ohms), which relays the actual position of the rotary water valve to the electronic control.

When the operator adjusts the temperature selector (F), the electronic control sends +9 to 10 Volt or -9 to 10 Volt power to the water valve motor (2b). The motor causes the valve to move

in the desired direction until the position of the feedback potentiometer (2a) matches the position of the temperature selector (F).

Component Description

The potentiometer assembly (temperature selector) (F) has a resistance of approximately 5000 ohms from one end to the other. The board control assembly (module assembly) (1) applies approximately 8 to 9 Volts DC across the potentiometer, and measures the voltage of the center terminal to determine the position of the knob. Troubleshoot the potentiometer (F) by disconnecting it from the circuit and measuring the resistance with a 9U-7330 Multimeter (or equivalent). The resistance of the center terminal should vary smoothly as the knob is turned and the total resistance should be about 5000 ohms.

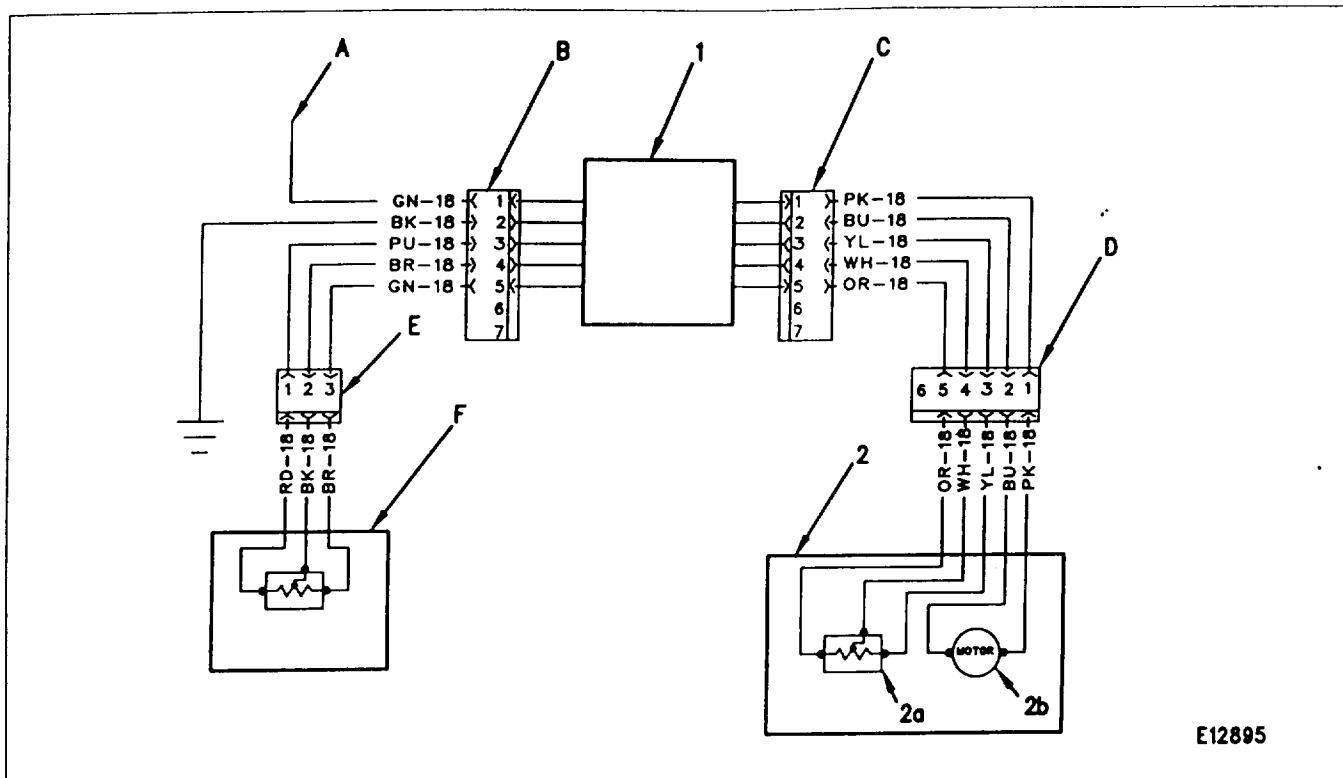
The board control assembly (module assembly) (1) provides +9 to 10 Volt or -9 to 10 Volt power to the water valve motor (2b) when the position of the temperature selector (F) is different than that of the water valve potentiometer (2a).

The water valve assembly (2) consists of a motor (2a) and a feedback potentiometer (2b). The motor is connected to the pink and blue wires. It can be checked by connecting those two wires to a 12 Volt DC source. The motor should run in either direction depending on the polarity.

NOTICE

Do not apply 12 Volts to the water valve motor leads for more than a fraction of a second after the valve reaches the end of its travel, or motor damage will result. Do not apply more than 12 Volts to the water valve motor.

The water valve feedback potentiometer can be checked with a 9U-7330 Multimeter (or equivalent), in the same way as the temperature selector described above.



Typical Electronic Heater Valve Control Circuit.(A) +24 Volt power from blower motor breaker. (B), (C), (D) 6 Pin DT or 7 Pin Sure Seal Connector. (E) 3 Pin Sure seal or DT Connector. (F) Potentiometer assembly (temperature selector). (1) Board control assembly (module assembly). (2) Water valve assembly. (2a) Water valve feedback potentiometer. (2b) Water valve motor.

D10R, D11N, D11R Track-Type Tractors

**Chart 3
127-9136 Heater Group And 127-9138 Conditioner Group Parts Identification**

Item	New Part No.	New Description	Former Part No.	Former Description
1	149-8218	Board Control Assembly	111-0877	Board Control Assembly
2	149-8199	Water Valve Assembly	130-9213	Water Valve Assembly
B	-	6 Pin - 5 Wire Connector	-	6 Pin - 5 Wire Connector
C	-	6 Pin - 5 Wire Connector	-	6 Pin - 5 Wire Connector
D	-	6 Pin - 5 Wire Connector	-	6 Pin - 5 Wire Connector
F	127-4540	Potentiometer	127-4540	Potentiometer

613C, 615C, 621F, 623F, 627F Wheel Tractors

D250E, D300E Articulated Trucks

**Chart 4
119-3144 Conditioner Group Parts Identification**

Item	New Part No.	New Description	Former Part No.	Former Description
1	149-8217	Board Control Assembly	3E-6406	Board Control Assembly
2	149-8195	Water Valve Assembly	119-1674	Water Valve Assembly
B	-	7 Pin - 5 Wire Connector	-	5 Pin - 5 Wire Connector
C	-	7 Pin - 5 Wire Connector	-	5 Pin - 5 Wire Connector
D	-	7 Pin - 5 Wire Connector	-	5 Pin - 5 Wire Connector
F	116-8653	Potentiometer	116-8653	Potentiometer

Foam Rubber Tube on Valve Stem of Cushion Hitch Valve Prevents Valve from Shifting to Lockdown Position

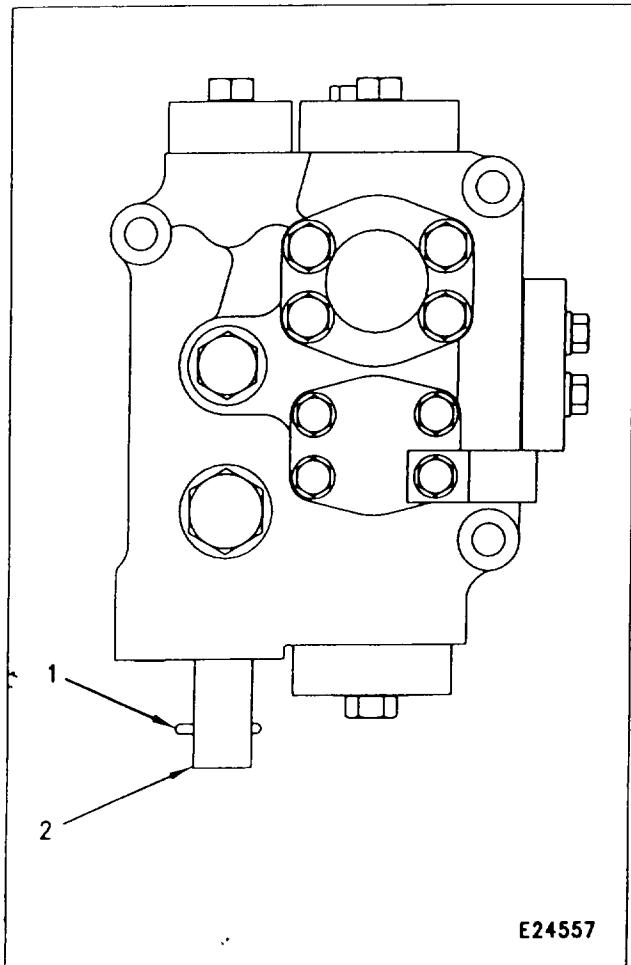
5312

**615C (5TF, 9XG),
621E (6AB, 2PD),
621F (4SK, 8PL),
623E (6CB, 6YF),
623F (6BK),
627E (6GB, 6EB, 7CG),
627F (1DL),
631E (1AB, 1NB, 3ND),
633E (2PS),
637E (1FB, 1JB),
651E (4YR, 89Z),
657E (5YR, 6TR, 90Z, 91Z) Wheel
Tractor-Scrapers**

The foam rubber tube (2) and cotter pin (1) must be removed from the end of the valve stem in 3G-9866 Valve Group-Cushion Hitch or 6E-0597 Valve Group-Cushion Hitch, before installation of the valve group on the machine.

The foam rubber tube is installed to protect the valve stem from paint when the valve group is painted at the factory. The tube can be inadvertently left on when the valve group is mounted on the machine at the factory. All new machines should be inspected to be sure the tube has been removed before delivery to the customer.

If the tube is not removed, the tube will restrict movement of the valve stem and may prevent the hitch from going into lockdown.



Typical of 3G-9866 Valve Group-Cushion Hitch or 6E-0597
Valve Group-Cushion Hitch

- (1) Cotter pin.
- (2) Foam rubber tube.

New Check Valve Groups with External Check Valve for Scraper Bowl Carry Prevent Vibration when Lowering Scraper Bowl

5321

**621B (36V),
621E (6BB, 2TF),
621F (5JK, 9NL),
627B (37V, 38V),**

Description Of Change: The ball check valve and spring, in the check valve group for scraper bowl carry, can be damaged. Damage will cause chatter and instability when lowering the scraper bowl.

New check valve groups, having an external check valve, eliminate the ball check valve and prevent spring damage, chatter, and instability.

Adaptable To: New 132-8617 and 132-8618 Valve Groups-Check-B were effective with 621 F (9NL96) Wheel Tractor-Scraper. The new valve groups-check-B are adaptable to the following machines:

621B (36V1 -Up),
627B (37V1 -Up, 38V1 -Up),
621E (6BB1-Up, 2TF1-Up),
621F (5JK1-Up, 9NL1 -95),
627E (6FB1-Up, 6HB1-Up),
627F (4YK1-Up) Wheel Tractor-Scrapers

Refer to models, illustrations, and procedures for installation of new check valve groups, and procedures for reworking former check valve groups, for the above machines.

Other new check valve groups with an external check valve are adaptable to the following machines:

615 (47Z1 -Up),
6150 (2XG1-Up),
623B (61E1-Up),
623E (6DB1-Up, 5SG1-Up),
623F (5SG480-897),
623F (55G898-Up),
6330 (19W1 -Up),
633E (1EB1-Up),
6390 (88X 1-Up) Wheel Tractor-Scrapers
Refer to models, illustrations, and procedures for installation of new check valve groups, and procedures for reworking former check valve groups, for the above machines.

New One Piece Swashplate on Steering Pump Group Eliminates Bolted Joint

4306, 5070

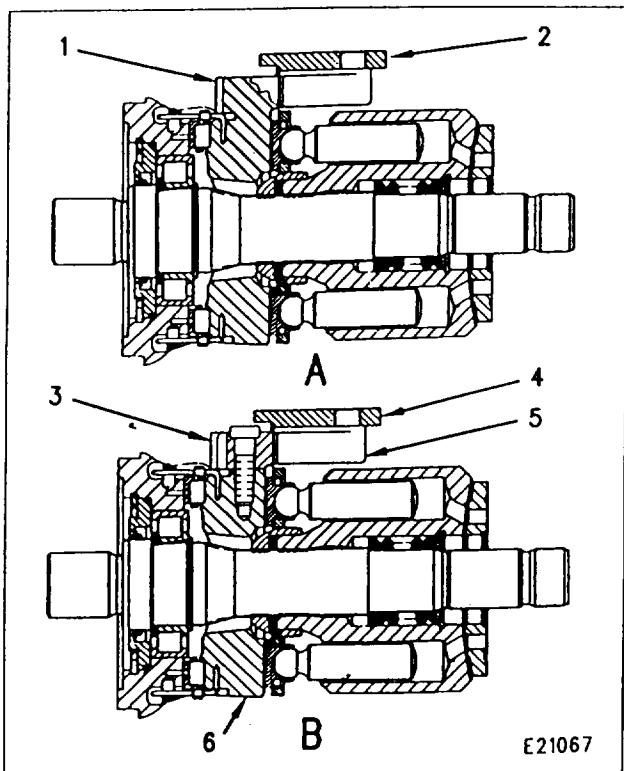
D8N (5TJ, 7TK),

Description Of Change: A new, one piece swashplate replaced the two piece swashplate group in the steering pump group. The one piece swashplate improves the connection of the swashplate and lever, by eliminating the bolted joint.

Adaptable To: The new one piece 122-6606 Swashplate (1) and new 122-6607 Lever (2), used together, are a direct replacement for former two piece 6E-4375 Swashplate Group (3) and former 6E-4378 Ring (4).

The new one piece 122-6606 Swashplate (1) and new 122-6607 Lever (2) are adaptable to earlier machines.

Former 6E-4376 Swashplate (3), 6E-4378 Ring (4), and 6E-4377 Lever (5) part of former 6E-4375 Swashplate Group are serviced by 122-6606 Swashplate (1) and 122-6607 Lever (2).



6E-4356 Rotating Group

View A: New swashplate and lever.

(1) New one piece 122-6606 Swashplate.

(2) New 122-6607 Lever.

View B: Former swashplate group and ring.

(3) Former 6E-4376 Swashplate.

(4) Former 6E-4378 Ring.

(5) Former 6E-4377 Lever.

(6) Former 6E-4375 Swashplate Group

Vent Line Added to Carry Check Valve to Prevent Inadvertent Drop of Scraper Bowl

5057, 5321

**621F (4SK, 5JK, 8PL, 9NL)
627F (4YK, 1DL) Wheel-Tractor Scrapers**

Description Of Change: Negative pressure (vacuum) can occur in the vent line to the check valve for scraper bowl carry. Negative pressure in the vent line can cause the scraper bowl to drop when trying to modulate the bowl down after a long haul with a loaded bowl.

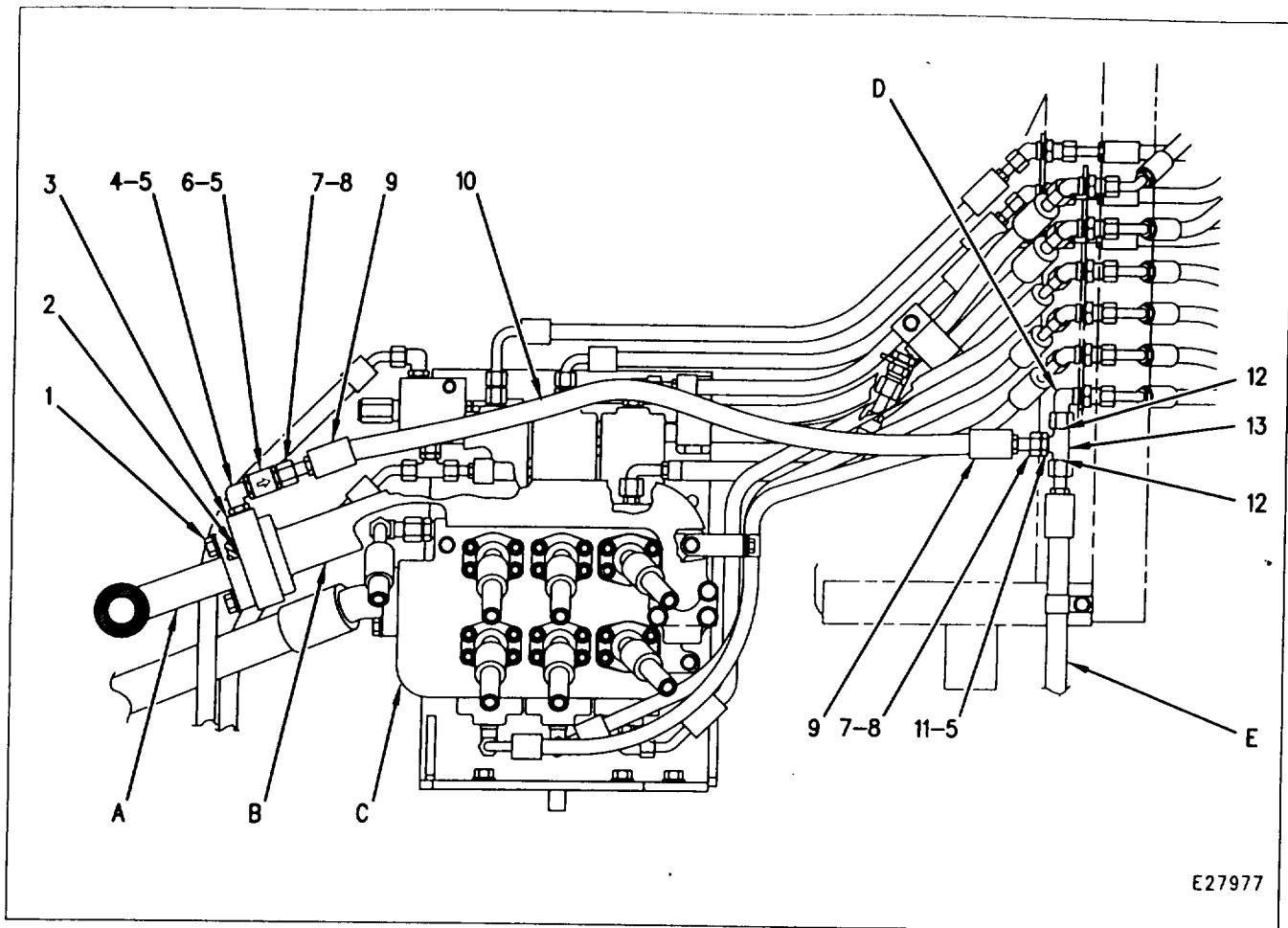
A line, added between the carry check valve and the return line for the hydraulic tank, will assure positive pressure in the vent line when the valve is in the "bowl carry" mode.

Adaptable To: The vent line is adaptable to first production for the above models.

Parts Required to Install Vent Line			
Item	Qty.	Part No.	Description
1	4	7X-0326	Bolt
2	2	4J-0524	Seal-O-ring
3	1	8W-5179	Adapter
4	1	6V-8076	Elbow-Special
5	3	3J-1907	Seal-O-ring
6	1	9T-3096	Valve Group-Check-E
7	2	6V-8397	Seal-O-ring
8	2	6V-9945	Coupling Assembly
9	2	4S-5414	Sleeve
10	95.0 cm (37.40in)	2P-5943	Hose-Hydraulic
11	1	6V-8636	Connector-Seal
12	2	6V-8398	Seal-O-ring
13	1	7X-0871	Tee-Swivel

Procedure to Add Vent Line

1. Remove hose assembly (A) from hydraulic return adapter (B) on control valve (C).
2. Install adapter (3) with two seals-O-ring (2) between hose assembly (A) and adapter (B). Use four bolts (1).
3. Install elbow-special (4) with one seal-O-ring (5) in port of adapter (3).
4. Install valve group-check-E (6) with one seal-O-ring (5) into elbow-special (4).
5. Disconnect vent line (E) from elbow (D).
6. Install tee-swivel (13) with one seal-O-ring (12).
7. Connect vent line (E) with one seal-O-ring (12) to tee-swivel (13).
8. Make hose assembly (10), using 95.0 cm (37.40in) 2P-5943 Hose-Hydraulic, two coupling assemblies (8), and two sleeves ((9).
9. Connect hose assembly (10) to valve groupcheck-E (6) and tee-swivel (13). Use one seal-O-ring (7) for check valve connection and one seal-O-ring (7) for tee connection.



Trail Unit Control Group

- (A) Hose assembly.
 - (B) Adapter.
 - (C) Control Valve.
 - (D) Elbow.
 - (E) Hose assembly (vent line).
- See chart for Items 1-13.

Extended Ripper Shank Protectors Provide Additional Wear Protection

6810, 6812

**D8L (4FB, 7YB, 7JC, 53Y),
D8N (9TC, 1XJ, 5TJ, 7TK),
D8R (7XM, 9EM),
D9L (14Y),
D9N (1JD, 5FJ, 6XJ),
D9R (7TL, 8BL),
D10 (84W, 76X),
D10N (2YD, 3SK),
D10R (3KR),
D11N (4HK, 74Z),
D11R (8ZR) Track-Type Tractors**

Extended ripper shank protectors are available. In highly abrasive conditions, standard protectors do not provide protection very high up on the shank resulting in excess wear. The extended ripper shank protectors eliminate the chances for excess wear. See the following charts for parts required.

Chart A: Parts Required Tip Size: R450 Shank Section: 75 X 330 mm (2.9 X 12.9in)					
Model	Shank	Protector	Clamp ¹	Wear Bar	Wear Bar Length
D8L (Single Shank)	8E-5342	109-9060	109-9064	109-9068	1400 mm (55.1 in)
D8L (Multi Shank)	8E-5341	109-9060	109-9064	109-9078	1014 mm (39.9 in)
D8L (Deep Rip Shank)	8E-5340	109-9060	109-9064	109-9068	1400 mm (55.1 in)
D8N (Single Shank)	8E-5347	109-9060	109-9064	109-9078	1014 mm (39.9 in)
D8N (Multi Shank)	8E-5346	109-9060	109-9064	109-9078	1014 mm (39.9 in)
D8N (Deep Rip Shank)	8E-5340	109-9060	109-9064	109-9068	1400 mm (55.1 in)
D8R (Single Shank)	8E-5347	109-9060	109-9064	109-9078	1014 mm (39.9 in)
D8R (Multi Shank)	8E-5346	109-9060	109-9064	109-9078	1014 mm (39.9 in)
D8R (Deep Rip Shank)	8E-5340	109-9060	109-9064	109-9068	1400 mm (55.1 in)
D9N (Single Shank)	8E-5339	109-9060	109-9064	109-9068	1400 mm (55.1 in)
D9N (Multi Shank)	8E-5346	109-9060	109-9064	109-9078	1014 mm (39.9 in)
D9N (Deep Rip Shank)	8E-5348	109-9060	109-9064	109-9068	1400 mm (55.1 in)
D9R (Single Shank)	8E-5339	109-9060	109-9064	109-9068	1400 mm (55.1 in)
D9R (Multi Shank)	8E-5346	109-9060	109-9064	109-9078	1014 mm (39.9 in)
D9R (Deep Rip Shank)	8E-5348	109-9060	109-9064	109-9068	1400 mm (55.1 in)

¹ To install the 109-9064 Clamp, use two 132-1001 Spacers, two 1D-4642 Bolts, and two 2J-3507 Nuts.

Chart F: Parts Required Protector Pins and Retainers for Shanks with Counter-bored Holes			
Ripper Size	Models	Part No.	Description
R450	D8L, D8N, D8R, D9N, D9R	6Y-3394	Pin (Bucket Style)
		8E-4743	Retainer Assembly (Bucket Style)
R500	D9L, D9R, D10, D10N, D10R, D11N, D11R	6Y-1204	Pin (Impact Ripper Style)
		6Y-1202	Retainer Assembly (Impact Ripper Style)
		6Y-3909	Pin (Bucket Style)
		4T-4707	Retainer Assembly (Bucket Style)
R550	D11N, D11R	9N-4245	Pin (Impact Ripper Style)
		6Y-1205	Retainer Assembly (Impact Ripper Style)
		8E-2229	Pin (Bucket Style)
		8E-2230	Retainer Assembly (Bucket Style)

Use the following procedure to assemble and install the extended ripper shank protectors.

Installation Procedure

**Chart G: Dimensions
Extended Multi-Piece Ripper Shank Protectors**

Shank Size	Shank Width ¹	Wear Bar (X) ¹	Chamfer (Y)	Chamfer (Z)
R450	75 mm (2.9 in)	107.76 mm (4.243 in)	74.6 mm (2.94 in)	37.3 mm (1.47 in)
R500	90 mm (3.5 in)	116.67 mm (4.593 in)	90 mm (3.5 in)	45 mm (1.8 in)
R500	100 mm (3.9 in)	125.72 mm (4.949 in)	100 mm (3.9 in)	50 mm (1.9 in)
R550	110 mm (4.3 in)	143.68 mm (5.657 in)	110 mm (4.3 in)	55 mm (2.2 in)

¹ Wear bars are wider than the shank.

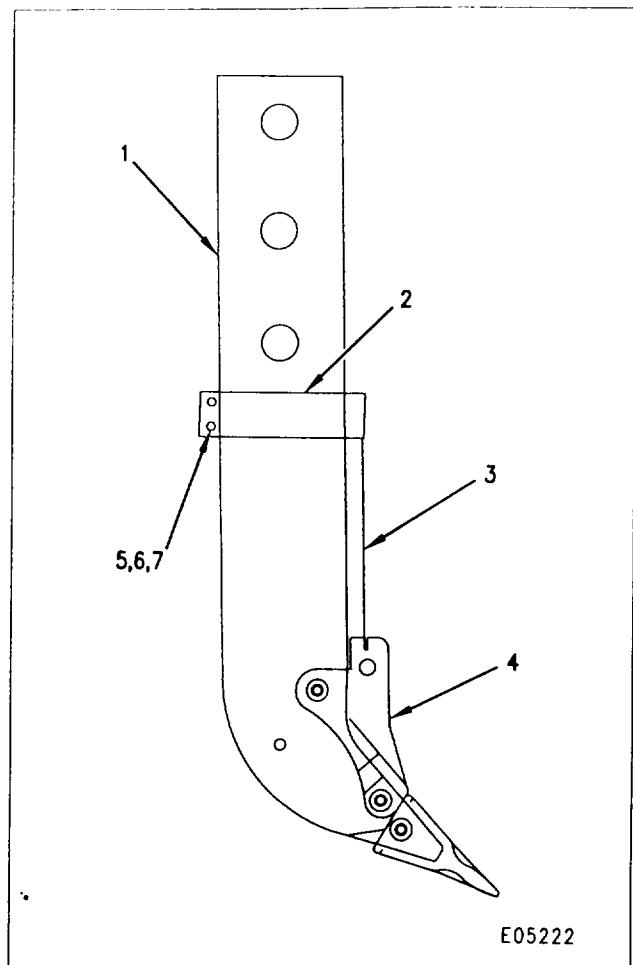


Illustration 1. (1) Ripper Shank. (2) Clamp. (3) Wear Bar. (4) Protector. (5) Spacers. (6) Bolts. (7) Nuts.

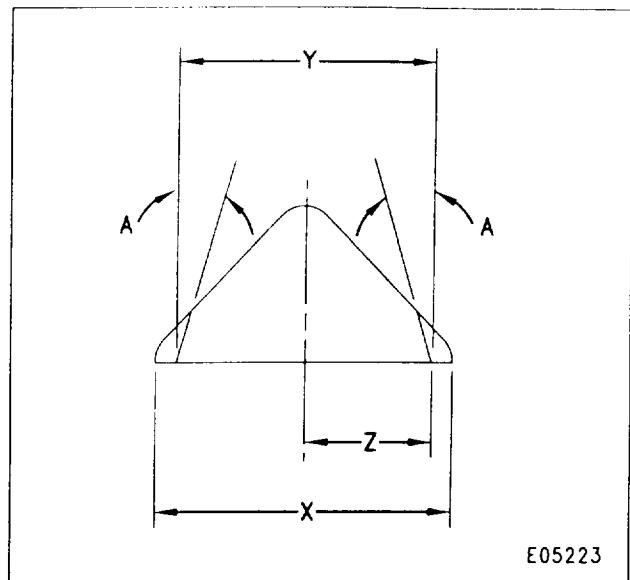


Illustration 2. See Chart F for dimensions. (A) $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ($68^{\circ}\text{F} \pm 41^{\circ}\text{F}$).

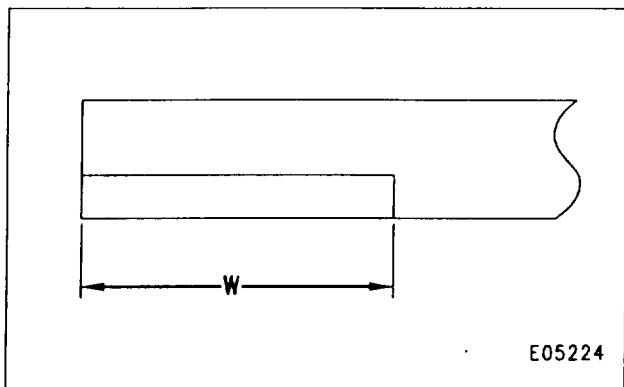


Illustration 3. Location of Chamfer. (W) 150 ± 3 mm (5.9 ± .2 in).

1. Cut the wear bar to the desired or specified length. See Chart G. Refer to the Ground Engaging Tools (GET) Parts Sales Kit in order to determine the longest bar length possible when shanks are pinned for maximum digging depth. The bar length selected should allow the clamp to be attached to the ripper shank close to the bottom of the ripper carriage or the beam where minimum wear will occur.

Note: When cutting multiple pieces from one wear bar, cut chamfer (W) at one end of each piece for engagement with the clamp. See Illustrations 2 and 3 and Chart G.

2. Disengage the pin holding the ripper shank in place. Raise the ripper carriage or the beam in order to provide clearance for assembling the new components.

3. Remove the existing ripper shank protector and install the appropriate protector (4) to the shank (1) with standard pins and retainers. See Charts A, B, C, D, E, and F.

4. Insert the unchamfered end of the wear bar (3) into the cavity in the top of the protector.

5. Slide the clamp (2) over the tip end of the wear bar and ripper shank. Insert two spacers (5) between the sides of the clamp and hold them in place with two bolts (6) and nuts (7). Tighten the bolts to a torque of $875 \pm 100 \text{ N}\cdot\text{m}$ ($647 \pm 74 \text{ lb ft}$).

Note: With extended protectors, the shank length cannot be shortened for difficult ripping.



Courtesy of Caterpillar Service Magazine

SUBJECT:

BATTERY, STORAGE 6TL NSN 6140-01-210-1964 AND NSN 6140-01-431-1172, COMBAT, TACTICAL,
CONSTRUCTION AND MATERIEL HANDLING EQUIPMENT.

DATE/TIME GROUP:
071921Z Jan 97**POCS:**

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- B. Mr. Raymond Smigiel, DSN 786-6580, Commercial (810) 786-6580, E-Mail: smigielr@cc.tacom.army.mil.
- C. Ms. Margaret Compton, DSN 786-8383, Commercial (810) 574-8383, E-Mail: comptonm@cc.tacom.army.mil.

ISSUE:

The Army's efforts to reduce battery cost/consumption while minimizing the user's maintenance procedures have resulted in an interim battery, (6TLP) NSN 6140-01-431-1172, being introduced into the Army's inventory in FY97. The battery can be visually identified by its green case and black top. The battery comes overpacked with improved electrolyte which cannot be ordered through the supply system. Although you can use this improved electrolyte in your old batteries (or the old electrolyte in the new batteries, if necessary), it is not recommended. To get the maximum performance from this battery, use the electrolyte provided. If the electrolyte becomes low in the battery, add distilled water to bring it up to the proper level.

USER ACTIONS:

- A. Direct support will continue to service the battery IAW TM 9-6140-200-14.
- B. These batteries may be mixed with the current 6TL battery. However, in order to get the best performance from them, we recommend that they be replaced as sets. The life expectancy for these batteries is 3-5 years when properly maintained, as shown in the FMCS below. This will provide extended performance and increased cost savings to the Army.

2.4. Maintenance Advisory Messages (MAM) (cont)

- C. If mixing the batteries (6TLL and 6TLFP) becomes necessary, check the electrolyte of each battery. If the specific gravity reading is more than 0.020, charge battery before installing into equipment.
- D. Since all TMs vary in technical content, the following standardized changes to the PMCS should be annotated in the appropriate manuals in the format below, until the current technical manuals are updated:

OPERATOR/CREW MEMBER: (-10 TM)

ITEM TO CHECK/ INTERVAL	OPERATOR/ CREW PROCEDURES	NOT FULLY MISSION CAPABLE IF:
-------------------------------	---------------------------------	-------------------------------------

WARNING

To avoid eye injury, eye protection is required when working around batteries. Do not smoke, use open flame, make sparks, or create other ignition sources around batteries. If a battery is giving off gases, it can explode and cause injury to personnel. Remove all jewelry, such as rings, ID tags, watches, and bracelets. If jewelry contacts a battery terminal, a direct short will result in instant heating of tools, damage to equipment, and injury to personnel.

CAUTION

To reduce battery damage, do not remove batteries from vehicle/equipment battery compartment unless the battery compartment is corroded (greenish/white powder) or during battery replacement. Do not jerk or pull on battery cables during visual inspection. Battery replacement will be performed only by unit maintenance personnel.

2-4. Maintenance Advisory Messages (MAM) (cont)

WEEKLY VEHICLE/
EQUIPMENT
BATTERIES VISUALLY
 CHECK BATTERY
COMPARTMENT FOR:

- A. Damaged or missing batteries.
 - A. One or more batteries missing or unserviceable
- B. Damaged or missing filler caps.
 - b. Filler caps damaged or missing.
- C. Broken, split, frayed, or missing cables.
 - C. Cables missing, broken, split or frayed.
- D. Damaged terminal posts.
 - D. Terminal posts damaged.
- E. Check for rust and corrosion.
- F. Check cleanliness.

NOTE

Report discrepancies to unit maintenance.

**Add the following to the "Operation Under Unusual Conditions" (extreme hot weather maintenance) section.

Anytime ambient temperature exceeds 90 degrees F. (32 degrees C.), check electrolyte level in each cell. If low, notify unit maintenance.

2-4. Maintenance Advisory Messages (MAM) (cont)

UNIT MAINTENANCE: (-20 TM)

ITEM TO CHECK/ SERVICE	OPERATOR/ CREW PROCEDURES	NOT FULLY MISSION CAPABLE IF:
INTERVAL		

WARNING

To avoid eye injury, eye protection is required when working around batteries. Do not smoke, use open flame, make sparks, or create other ignition sources around batteries. If a battery is giving off gases, it can explode and cause injury to personnel. Remove all jewelry, such as rings, ID tags, watches, and bracelets. If jewelry contacts a battery terminal, a direct short will result in instant heating of tools and damage to equipment and cause injury to personnel.

CAUTION

To reduce battery damage, do not remove batteries from vehicle/equipment battery compartment unless the battery compartment is corroded (greenish/white powder) or during battery replacement. Do not jerk or pull on battery cables during visual inspection. Battery replacement will be performed only by unit maintenance personnel.

2-4. Maintenance Advisory Messages (MAM) (cont)

VEHICLE
/EQUIP
BATTERIES

VISUALLY
CHECK
COMPARTMENT FOR:

SEMI-ANNUAL

- A. Remove storage batteries from vehicle (IAW appropriate TM).
- B. Check for damaged or missing filler caps.
- C. Check for damaged terminal posts.
- D. Check electrolyte level (IAW TM 9-6140-200-14).
- E. Check and record specific gravity of each cell in all batteries (IAW TM 9-6140-200-14).
- F. Check battery cable for frays, splits, and breaks.
- G. Clean battery compartment.
- H. Install batteries (IAW appropriate TM).
- I. Coat terminals lightly with grease or silicone.
- B. Filler caps missing or damaged.
- C. Terminal posts damaged.
- D. Electrolyte is not at proper level.
- E. Specific gravity is not within standards.
- F. Cables missing, frayed, split or broken.

2-4. Maintenance Advisory Messages (MAM) (cont)

TACOM/PM ACTIONS:

Update/review battery technical manual (TM 9-6140-200-12, dated July 1989) by FY98.

SUPPLY STATUS:

Stock for the interim battery, NSN 6140-01-436-1172, is on hand and available.

END OF MESSAGE

SUBJECT:
Speedometer

POC:
Mr. Dudek, AMSTA-IM-HLA, DSN 786-5763

COMMENTS:

Evaluation of a suggestion has resulted in the identification of a Military Standard (MS) speedometer for the HMMWV. Speedometer NSN 6680-00-933-3599 can be used as a direct replacement for NSN 6680-01-195-2146. Actions have been initiated to use speedometer NSN 6680-01-195-2146 until supplies are exhausted. Then use NSN 6680-00-933-3599. The difference between the two speedometers is in the mounting bracket. Use the existing bracket when replacing the speedometer in the HMMWV. If needed, modify the new bracket by following the listed procedures.

PROCEDURES:

The following procedures are only required if the speedometer bracket is being replaced and the speedometer received is NSN 6680-00-933-3599.

9-9. Tactical Trucks (cont)

1. Support speedometer bracket (1) in a bench vise (2) as shown in figure 1.
2. Locate and mark a cut line (3) 7/8 inch back from the end of the bracket leg (4) as shown in figure 2.
3. Cut the bracket leg at the cut line (3) as shown in figure 2.
4. Repeat steps 1 thru 3 for the other bracket leg.

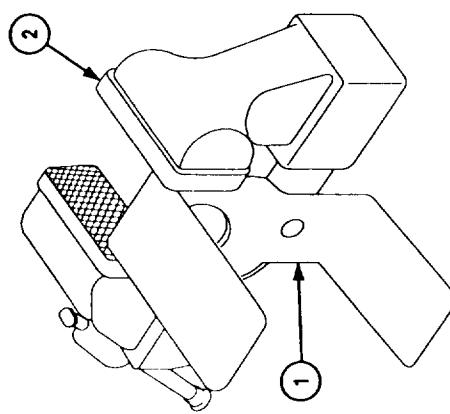


Figure 1

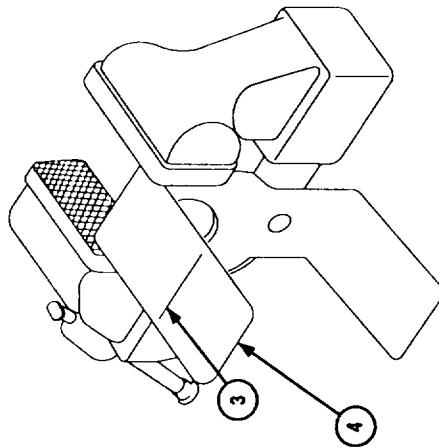


Figure 2

PUBLICATIONS AFFECTED:
TM 9-2320-280-20-2

LEVEL OF MAINTENANCE:
Unit

END OF MESSAGE

f. ITEM: HMMWV FOV.

SUBJECT:
Disc Brake Pad Wear Gauge

POC:

Ms. Jody McInerney, AMSTA-IM-HLA, DSN 786-5481, Commercial (810) 574-5481, E-Mail: mcinernj@cc.tacom.army.mil.

DEFICIENCY:

Reports from the field indicate personnel have difficulty inspecting brake pad wear.

COMMENTS:

Procedures have been developed to fabricate a gauge for measuring the brake pad while installed on vehicle. Use of this gauge is not mandatory, but it can be fabricated and used at the commander's discretion. This can be accomplished in the field using the following material and instructions.

PROCEDURES:

- A. Fabrication of Disc Brake Pad Wear Gauge.
Material TO BE REQUESTED:

NSN	NOMENCLATURE	QTY
3439-00-518-1914	Rod, welding, 0.125 inch diameter	1

- Cut 7.50 inches of NSN 3439-00-518-1914 welding rod as shown in figure 1.

- Using the welding rod, bend to the configuration shown in figure 1.

- Notes:
- All dimensions are in inches.
 - Material:
Welding rod
Class RCUZN
IAW AWS D 5.7
0.125 DIA.
 - Remove all burrs and sharp edges.

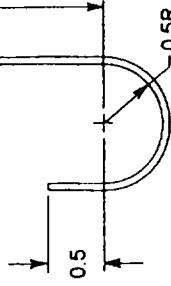
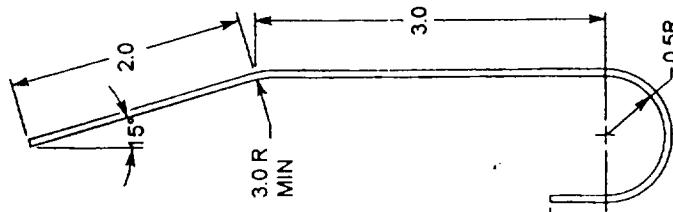


FIGURE 1

9-9. Tactical Trucks (cont)

B. Use of Disc Brake Pad Wear Gauge.

NOTE

Replacement of pads are by axle sets.

1. Using brake pad gauge (1), check wear on inner and outer pads (2) by placing gauge (1) between rotor (3) and backing plate (4) as shown in figure 2.
2. If brake pad gauge (1) will not fit between rotor (3) and backing plate (4) as shown in figure 2, replace brake pads (refer to TM 9-2320-280-20).

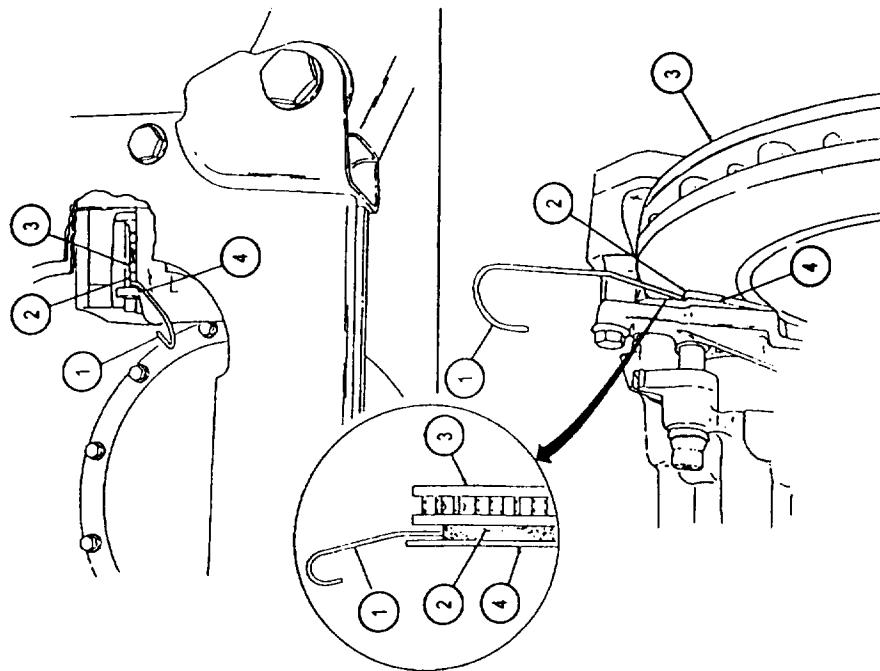


Figure 2

PUBLICATIONS AFFECTED:
TM 9-2320-280-20

LEVEL OF MAINTENANCE:
Unit

END OF MESSAGE

3-9. Tactical Trucks

MODEL:
HMMWV

SUBJECT:
Power Steering Bleed Procedures

POC:

Ms. Patricia Grashik, AMSTA-IM-HLA, DSN 786-5225, Commercial (810) 574-5225
grashikp@cc.tacom.army.mil

DEFICIENCY:

The current bleed procedures in TM9-2320-280-20-2, dated Jan 96, Para 8-29, may not expel all air out of the steering system.

COMMENTS:

We are aligning our bleeding procedures with those recommended by Saginaw Steering Systems, the steering system vendor.

PROCEDURES:

NOTE

Before bleeding the steering system inspect to ensure that hoses are not touching vehicle body or other components and all connections are tight.

1. Shut engine off. (TM9-2320-280-10)
2. Turn steering wheel full left.
3. Raise and secure hood.
4. Fill fluid reservoir to "FULL COLD" level. (TM9-2320-280-20) Leave cap off.
5. Raise front wheels off ground. (TM9-2320-280-20)
6. Turn steering wheel left and right holding wheels at steering stops for five seconds at least 40 times.

NOTE

Power steering fluid must be free of bubbles and foam. If bubbles or foam are noted, it could be an indication of a loose connection or leaky O-ring.

3-9. Tact. Trucks cont.

7. Check fluid. If any bubbles are seen, repeat step 5.
8. Start engine. With engine idling, add power steering fluid, if necessary. (TM9-2320-280-10)
9. Install reservoir cap.
10. With wheels to center, lower front wheels to ground. (TM9-2320-280-20)
11. Keep engine running for two or three minutes. Turn steering wheel left and right.

NOTE

- If pump is noisy, recheck hoses for possible contact with vehicle body or engine. If no contact is found and noise continues, switch engine off and repressurize system by following steps 12 and/or 13.
12. Remove reservoir cap. Wait for system to cool. Reinstall reservoir cap. Start engine and check pump for noise, if noise is still present continue to step 13. If noise stopped, proceed to step 14.
 13. Turn engine off. Remove fluid from reservoir using a suction device. Refill reservoir with clean, cool fluid. Install reservoir cap. Start engine and check pump for noise. If noise is still present, replace power steering pump. (TM9-2320-280-20)
 14. Turn engine off. (TM9-2320-280-10)
 15. Check power steering level. (TM9-2320-280-10)
 16. Lower and secure hood. (TM9-2320-280-10)
 17. Operate vehicle and check for proper steering operation. (TM9-2320-280-10)

PUBLICATIONS AFFECTED:

TM9-2320-280-20

LEVEL OF MAINTENANCE:

Unit

END OF MESSAGE

9.9. Tactical Trucks (cont)

i. ITEM: M998A2 SERIES VEHICLES.

SUBJECT:

New Caliper-to-Tee Brake Lines and Related Parts

POC:

Ms. Patricia Grashik, AMSTA-IM-HLA, DSN 786-5225, Commercial (810) 574-5225, E-Mail: grashikp@cc.tacom.army.mil

COMMENTS:

The M998A2 series vehicles will be fielded with different brake caliper lines than described in paragraph 7-15 of TM 9-2320-280-20, dated January 1996. The following procedure will be used in conjunction with paragraph 7-15 and is provided for interim field notification of minor alterations and publication changes.

MATERIALS/PARTS:

The caliper-to-tee brake lines can be replaced using the following parts:

NSN/PART NO.	CAGEC	NOMENCLATURE	QTY
4730-01-184-6971		Coupling, Tube	4
5305-01-393-6311		Screw	2
5306-00-226-4828		Screw	2
5310-00-488-3889		Nut	1
5310-01-119-1024		Washer	4
5310-01-189-8476		Washer	4
5340-00-057-3043		Clamp, Loop	2
5340-00-989-1771		Clamp, Loop	2
5340-00-678-1753		Clip	4
5340-01-189-7640		Clamp, Loop	4
5975-00-984-6582		Strap, Tiedown Elect	2
EX4717-1	34623	Bracket, Support, Brake Line, Right Rear	1
EX4717-2	34623	Bracket, Support, Brake Line, Left Rear	1
EX4718	34623	Bracket, Support, Brake Line, Front	1
RCSK 17805	34623	Tube, Spiral Wrap (23 inches Long)	4
RCSK 18436-1	34623	Line Assembly Brake Caliper, Left Front	1
RCSK 18436-2	34623	Line Assembly Brake Caliper, Right Front	1
RCSK 18437-1	34623	Line Assembly Brake Caliper, Left Rear	1
RCSK 18437-2	34623	Line Assembly Brake Caliper, Right Rear	1

9-9. Tactical Trucks (cont)

PROCEDURE:

A. Caliper-to-Tee Brake Line Replacement.

1. Refer to paragraph 7-15, page 7-32:
 - a. Replace second bullet note under a with, "Perform steps 4 through 6 for the left front caliper-to-tee line. Perform steps 7 through 10 for the left rear caliper-to-tee line."
 - b. Replace step 4 with, "Disconnect left front brake line (1) from caliper (13). See figure 1."
 - c. Add step 4.1, "Remove capscrew (15), washer (14), and clamp (11) from yoke (12). See figure 1."
 - d. Replace step 5 with, "Remove capscrew (7), washer (6), and clamp (5) from bracket (8). See figure 1."
 - e. Add step 5.1, "Remove two tiedown straps (10) from brake lines (9) and (1). Discard tiedown straps (10). See figure 1."
 - f. Replace step 6 with, "Remove clip (4) and left front brake line (1) from bracket (2) and intermediate brake line (3). See figure 1."

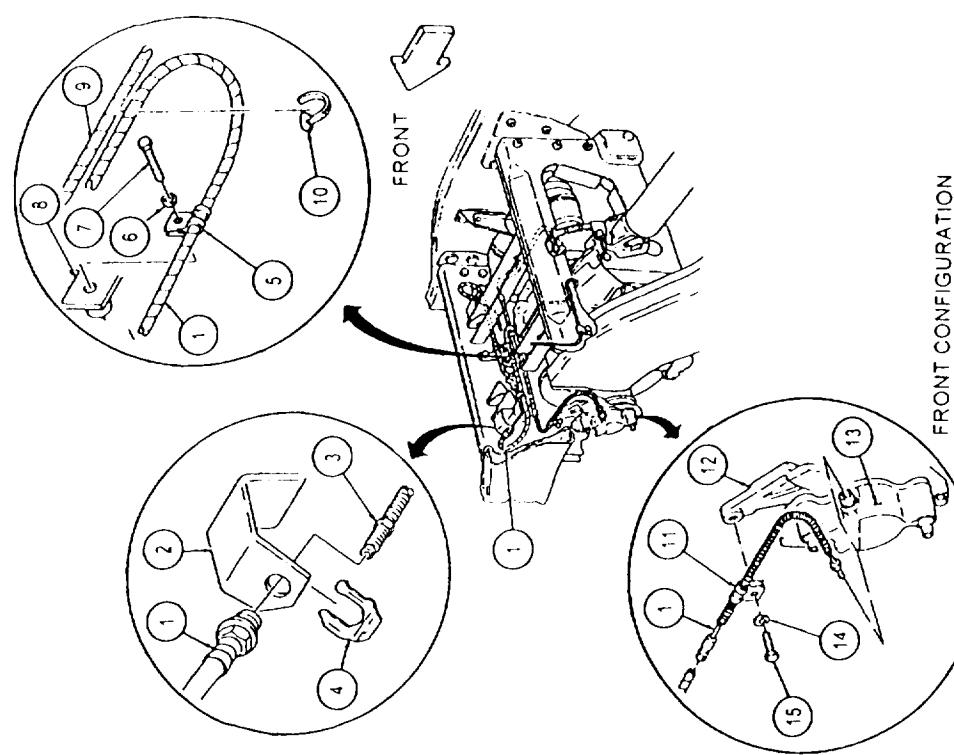


FIGURE 1

9-9. Tactical Trucks (cont)

- g. Add step 7, "Disconnect left rear brake line (1) from caliper (7). See figure 2."
- h. Add step 8, "Remove capscrew (9), washer (8), and clamp (5) from yoke (6) as shown in figure 2."
- i. Add step 9, "Remove capscrew (10) and clamp (11) from bracket (12). See figure 2."
- j. Add step 10, "Remove clip (4) and left rear brake line (1) from bracket (2) and intermediate brake line (3). See figure 2."
2. Refer to paragraph 7-15, page 7-34:
 - a. Replace note, second bullet, with, "Perform steps 5 through 7 for the left front caliper-to-tee line. Perform steps 8 through 11 for the left rear caliper-to-tee line."
 - b. Replace step 5 with, "Install left front brake line (1) on intermediate brake line (3) and bracket (2) with clip (4). See figure 1."
 - c. Replace step 6 with, "Install clamp (5) and left front brake line (1) on bracket (8) with washer (6) and capscrew (7). Secure brake lines (9) and (1) with two tiedown straps (10). See figure 1."
 - d. Add step 6.1, "Install clamp (11) and brake line (1) on yoke (12) with washer (14) and capscrew (15). See figure 1."
 - e. Replace step 7 with, "Connect left front brake line (1) to caliper (13). See figure 1."

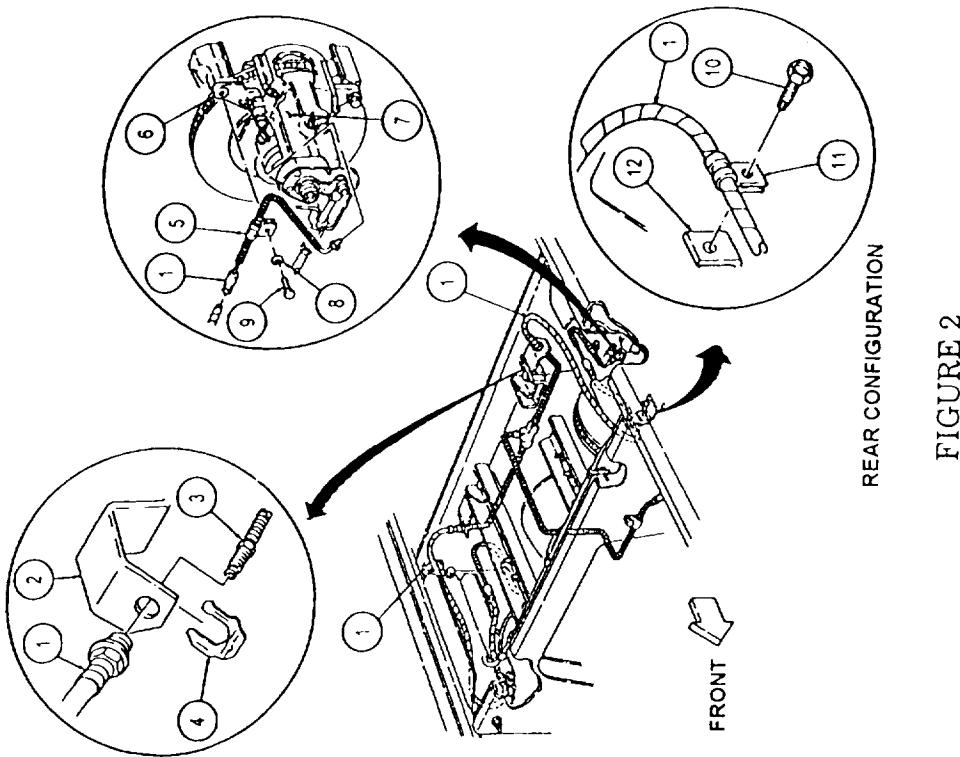


FIGURE 2

9-9. Tactical Trucks (cont)

- f. Add step 8, "Install left rear brake line (1) on intermediate brake line (3) and bracket (2) with clip (4). See figure 2."
- g. Add step 9, "Install clamp (11) and brake line (1) on bracket (12) with capscrew (10). See figure 2."
- h. Add step 10, "Install clamp (5) on yoke (6) with washer (8) and capscrew (9). See figure 2."
- i. Add step 11, "Connect left rear brake line (1) to caliper (7). See figure 2."

B. Caliper-to-Tee Support Brackets Removal.

NOTE

Perform steps 1 through 3 for front support bracket.
Perform steps 4 through 6 for rear support bracket.

- 1 Remove two tiedown straps (8) from front brake lines (4) and intermediate brake line (11) as shown in figure 3.
- 2 Remove two capscrews (7), washers (6), and clamps (5) from bracket (2) as shown in figure 3.
3. Remove nut (10), washer (9), capscrew (3), and support bracket (2) from crossmember (1) as shown in figure 3.

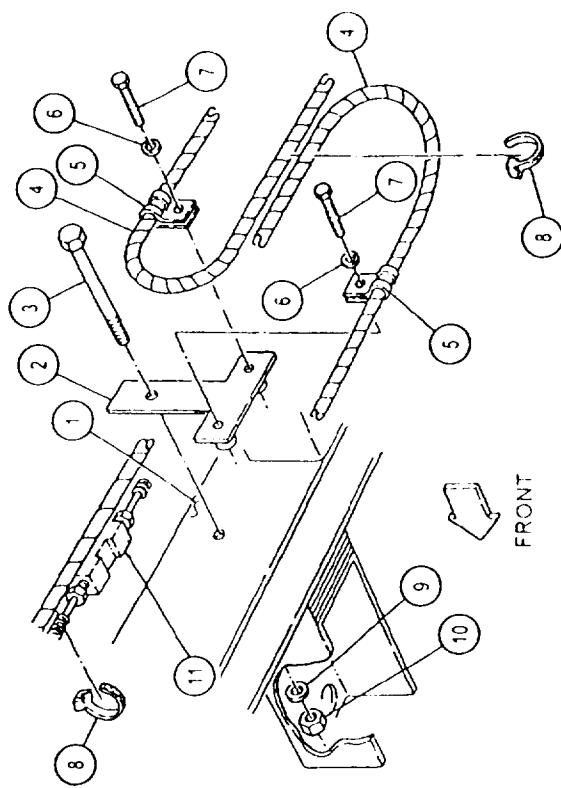
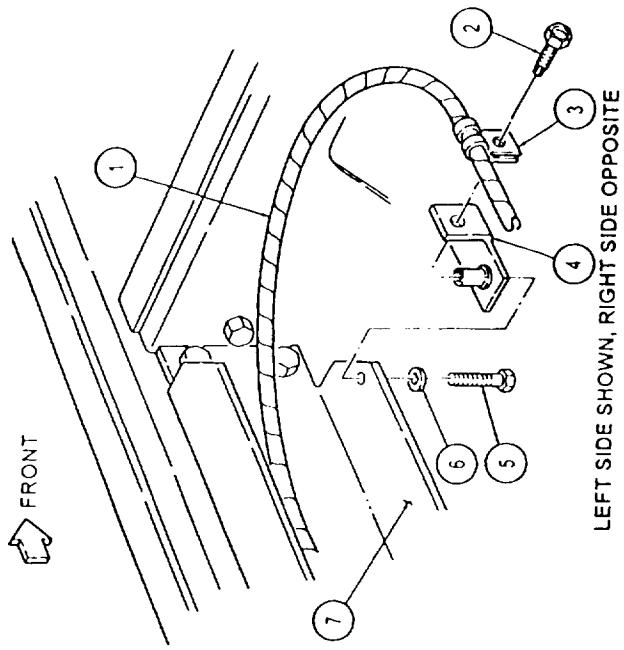


FIGURE 3

9.9. Tactical Trucks (cont)

4. Remove capscrew (2), clamp (3), and brake line (1) from left support bracket (4) as shown in figure 4.
5. Remove capscrew (5), washer (6), and left support bracket (4) from frame bracket (7) as shown in figure 4.
6. Repeat steps 4 and 5 for right support bracket.



C. Caliper-to-Tee Support Brackets Installation.

NOTE

- Perform steps 1 through 3 for front support bracket. Perform steps 4 through 6 for rear support bracket.
1. Install support bracket (2) on crossmember (1) with capscrew (3), washer (9), and nut (10) as shown in figure 3.
 2. Install two clamps (5) on support bracket (2) with two washers (6) and capscrews (7) as shown in figure 3.
 3. Secure front brake lines (4) and intermediate brake line (11) with two tiedown straps (8) as shown in figure 3.

9-9. Tactical Trucks (cont)

- 4 Install left support bracket (4) on frame bracket (7) with washer (6) and capscrew (5) as shown in figure 4.
- 5 Install brake line (1) and clamp (3) on support bracket (4) with capscrew (2) as shown in figure 4.
- 6 Repeat steps 4 and 5 for right support bracket.

PUBLICATIONS AFFECTED:

TM 9-2320-280-20
TM 9-2320-280-20P

LEVEL OF MAINTENANCE:

Unit

END OF MESSAGE

SUBJECT:
3L80 Transmission Shift Selector

POC:

Ms. Patricia Grashik, AMSTA-IM-HLA, DSN 786-5225, Commercial (810) 574-5225, E-Mail: grashikp@cc.tacom.army.mil.

DEFICIENCY:

If the shift selector is pushed forward and to the right, the transmission could engage reverse (R) while the shift selector is in a locked position of neutral (N); or neutral (N) when the shift selector is in a drive (D) locked position. This is caused by misadjustment of the shift linkage.

COMMENTS:

To correct the problem, the trunnion located at the end of the shift control lever needs to be turned one revolution clockwise and then reconnected. This procedure needs to be repeated as many times as necessary until the problem is corrected. If the trunnion is rotated more than one revolution at a time, the proper adjustment may be missed.

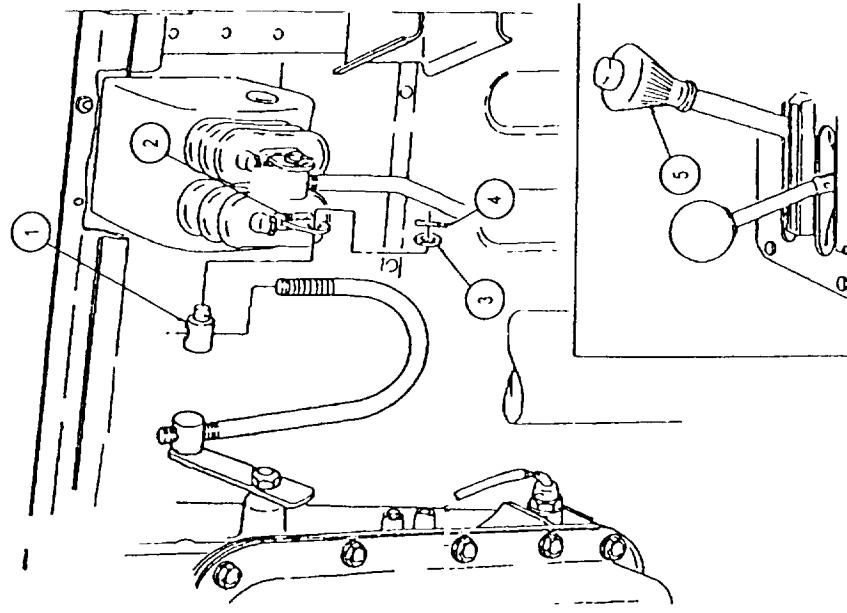
MATERIALS/PARTS:

NSN:	5315-00-842-3044
NOMENCLATURE:	Cotter, Pin
QTY:	A/R

9-9. Tactical Trucks (cont)

PROCEDURE:

1. Remove cotter pin (4) and washer (3) and disconnect trunnion (1) at the shift control lever (2). Discard cotter pin.
2. Turn trunnion (1) one revolution clockwise on the linkage arm.
3. Reconnect the trunnion (1) to the shift control lever (2) with new cotter pin (4).
4. Check the shifter:
 - a. With the shift selector (5) locked in neutral (N), shove the shift lever (5) forward and to the right. If the transmission goes into reverse (R), repeat steps 1 through 4.
 - b. With the shift selector (5) locked in drive (D), shove the shifter lever (5) forward and to the right. If the transmission goes into neutral (N), repeat steps 1 through 4.



NOTE

Rotate trunnion only one time or proper adjustment may be missed.

PUBLICATIONS AFFECTED:
TM 9-2320-280-20

LEVEL OF MAINTENANCE:
Unit

END OF MESSAGE

Courtesy Dept. of the Army Technical Bulletin

Maintenance Bulletin Master List

M/B #	DATE	M/B #	DATE	M/B #	DATE	M/B #	DATE
1	Nov-73	41	Feb-78	81	Feb-82	120	Apr-86
2	Jan-74	42	Mar-78	82	Mar-Apr 82	121	May-Jun 86
3	Mar-74	43	Apr-78	83	May-Jun 82	122	Aug-Sep 86
4	May-74	44	May-78	84	Jul-82	123	Oct-Nov 86
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7	Oct-74	47	Aug-Sep 78	87	Oct-82	126	May-Jun 87
8	Nov-74	48	Oct-78	88	May-83	127	Jul-Aug 87
9	Dec-74	49	Nov-78	89	Jun-83	128	Jan-88
10	Jan-75	50	Dec-78	90	Jul-83	129	Mar-88
11	Mar-75	51	Jan-79	91	Aug-83	130	Apr-May 88
12	Jun-75	52	Feb-79	92	Sep-83	131	Jun-Jul 88
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15	Sep-75	55	Jun-79	95	Dec-83	134	Feb-Apr 89
16	Oct-75	56	Jul-79	96	Jan-84	135	May-Jul 89
17	Nov-75	57	Aug-Sep 79	97	Feb-84	136	Aug-Oct 89
18	Dec-75	58	Oct-Nov 79	98	Mar-84	137	Nov89-Jan90
19	Jan-76	59	Dec-79	99	Apr-84	138	Feb-Apr 90
20	Feb-76	60	Jan-80	100	May-84	139	Jan-91
21	Mar/Feb	61	Feb-80	101	Jun-84	140	May-91
22	May-76	62	Mar-80	102	Jul-84	141	Aug-91
23	Jun-76	63	Apr-80	103	Aug-84	142	Dec-91
24	Jul-76	64	May-80	104	Sep-84	143	Apr-92
25	Aug-76	65	Jun-80	105	Oct-84	144	Jul-92
26	Sep-76	66	Jul-80	106	Nov-84	145	Dec-92
27	Oct-76	67	Aug-80	107	Dec-84	146	Apr-93
28	Nov-76	68	Sep-Oct 80	108	Jan-85	147	Aug-93
29	Dec-76	69	Nov-80	109	Feb-85	148	Dec-93
30	Jan-77	70	Dec-80	110	Mar-85	149	Apr-94
31	Feb-77	71	Jan-81	111	Apr-85	150	Aug-94
32	Mar-77	72	Feb-81	112	May-85	151	May-95
33	Apr-77	73	Mar-Apr 81	113	Jun-85	152	Dec-95
34	May-77	74	May-Jun 81	114	Jul-Aug 85	153	May-Jul 96
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37	Aug- Sep 77	77	Sep-81	117	Jan-Feb 86	156	Aug-97
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39	Nov- Dec 77	79	Dec-81	119	Mar-86	158	Mar-98
40	Jan-78	80	Jan-82				

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ATTACHED IS A LIST OF PUBLICATIONS THAT WE HAVE AVAILABLE AT COST. NOTE: THE ARMY FREQUENTLY ADDS CHANGES TO THEIR PUBLICATIONS, WE SUGGEST YOU UPDATE YOUR TECH LIBRARY WITH THE CURRENT UPDATES. TO ORDER PLEASE SUBMIT A FUNDED REQUISITION (DD FORM 1348-2 OR DD FORM 1250) TO US. ROUTING IDENTIFER P96, UNIT OF ISSUE IS EACH, COG IS ON, PRICE FOR EACH \$15.00 (STOCKING AND SHIPPING). FAX COPY IS ACCEPTABLE DSN 551-3395 OR (805) 982-3395. ALL LOCAL STOCK NSNs BEGIN WITH 7610-LL-XXX-XXXX. OB INDICATES TM IS OBSOLETE AND MAY BE SUPERCEDED.

POINT OF CONTACT IS CINDY SCHWIEDER DSN 551-1918 OR (805) 982-1918.

UPDATING YOUR TECH LIBRARY

MODEL	ARMY TM #	LOCAL NSN	REMARKS
M1008	LO 9-2320-289-12	L26-0980	
M1008A1	TM 9-2320-289-10	L26-3080	
M1009	TM 9-2320-289-10-HR	L26-0940	
M1010	TM 9-2320-289-20	L26-0960	
M1028	TM 9-2320-289-20P	L26-2440	
M1028&A	TM 9-2320-289-34	L26-0970	
M1028A1	TM 9-2320-289-34P	L26-1030	
M1002	LO 9-2320-282-12	L26-9630	
	TM 9-2320-282-10	L26-9640	
	TM 9-2320-282-10-HR	L26-9650	
	TM 9-2320-282-20	L26-9660	
	TM 9-2320-282-20P	L26-9670	
	TM 9-2320-282-30	L26-9680	
	TM 9-2320-282-30P	L26-9690	
M1026	LO 9-2320-280-12	L26-6740	
M1035	TM 9-2320-280-10	L26-2720	
M1035A1	TM 9-2320-280-10-HR	L26-6590	
M1043	TM 9-2320-280-20	L26-2730	OB 280-20-1, 20-2, 20-3
M1043A1	TM 9-2320-280-20-1	L26-6690	
M1097	TM 9-2320-280-20-2	L26-6700	
M1097A1	TM 9-2320-280-20-3	L26-7180	
M996	TM 9-2320-280-20P	L26-2740	OB 280-24P-1, 24P-2
M997	TM 9-2320-280-24P-1	L26-9710	
M998	TM 9-2320-280-24P-2	L26-9720	
M998A1	TM 9-2320-280-34	L26-2750	
	TM 9-2320-280-34P	L26-2760	OB 280-24P-1, 24P-2
M35A2	LO 9-2320-209-12	L26-XXXX	
M35A2C	LO 9-2320-209-12-1	L26-2700	
M45A2	TB 9-2320-209-14	L26-XXXX	
M49A2C	TM 9-2320-209-10/1	L26-XXXX	OB 209-10-1, 10-2, 10-3, 10-4
M50A3	TM 9-2320-209-10-1	L26-2660	
M756A2	TM 9-2320-209-10-2	L26-2670	
	TM 9-2320-209-10-3	L26-2680	
	TM 9-2320-209-10-4	L26-2690	
	TM 9-2320-209-20-1	L26-0110	
	TM 9-2320-209-20-2-1	L26-5900	
	TM 9-2320-209-20-2-2	L26-5910	
	TM 9-2320-209-20-3-1	L26-5920	
	TM 9-2320-209-20-3-2	L26-5930	
	TM 9-2320-209-20-3-3	L26-5940	
	TM 9-2320-209-20-3-4	L26-5950	
	TM 9-2320-209-20P	L20-0070	
	TM 9-2320-209-30/4	L26-XXXX	
	TM 9-2320-209-34	L25-6810	OB 209-34-1, 2-1, 2-2, 2-3
	TM 9-2320-209-34-1	L26-2080	
	TM 9-2320-209-34-2-1	L26-2090	
	TM 9-2320-209-34-2-2	L26-2100	
	TM 9-2320-209-34-2-3	L26-2110	
	TM 9-2320-209-34P	L26-6010	
	TM 9-2320-209-34P-1	L26-XXXX	OB 361-34P
	TM 9-2320-209-34P-2	L26-9940	OB 361-34P
	TM 9-2320-209-35	L26-XXXX	OB NO REPLACEMENT
	TM 9-2320-361-10	L26-XXXX	
	TM 9-2320-361-20	L26-8130	
	TM 9-2320-361-20P	L26-9945	
	TM 9-2320-361-34	L26-7150	
	TM 9-2320-361-34P	L26-9950	

M809	LO 9-2320-260-12	L25-9500
M813	MWO 9-2320-200-35-1	L26-5460
M813 W/O WINCH	TM 9-2320-260-10	L26-2650
M8131	TM 9-2320-260-10-1	L26-XXXX OB 260-10
M816	TM 9-2320-260-10-2	L26-XXXX OB 260-10
M817	TM 9-2320-260-10-3	L26-XXXX OB 260-10
M818	TM 9-2320-260-10-4	L26-XXXX OB 260-10
	TM 9-2320-260-10-HR	L25-9600
	TM 9-2320-260-20	L23-9020
	TM 9-2320-260-20-1	L26-2210 ??????
	TM 9-2320-260-20-2-1	L26-XXXX OB 260-20
	TM 9-2320-260-20-2-2	L26-XXXX OB 260-20
	TM 9-2320-260-20-3-1	L26-XXXX OB 260-20
	TM 9-2320-260-20-3-2	L26-XXXX OB 260-20
	TM 9-2320-260-20-3-3	L26-XXXX OB 260-20
	TM 9-2320-260-20-3-4	L26-XXXX OB 260-20
	TM 9-2320-260-20P	L26-6180
	TM 9-2320-260-34-1	L26-2120
	TM 9-2320-260-34-2	L26-8130
	TM 9-2320-260-34-2-1	L26-0330 OB 260-34-1, 34-2
	TM 9-2320-260-34-2-2	L26-0340 OB 260-34-1, 34-2
	TM 9-2320-260-34-2-3	L26-0350 OB 260-34-1, 34-2
	TM 9-2320-260-34-2-4	L26-0360 OB 260-34-1, 34-2
	TM 9-2320-260-34-2-5	L26-0370 OB 260-34-1, 34-2
	TM 9-2320-260-34P-1	L23-9040
	TM 9-2320-260-34P-2	L23-9050
	TM 9-2320-260-ESC	L26-XXXX OB NO REPLACEMENT
M51A2	LO 9-2320-211-12	L20-1910
M52A2	TM 9-2320-211-10	L26-1950
M54	TM 9-2320-211-10-1	L26-0120
M54A2	TM 9-2320-211-10-2	L26-0130
	TM 9-2320-211-10-3	L26-0140
	TM 9-2320-211-10-4	L26-0150
	TM 9-2320-211-10-HR	L26-XXXX
	TM 9-2320-211-20	L20-1020
	TM 9-2320-211-20-1	L26-0160
	TM 9-2320-211-20-2-1	L26-9810
	TM 9-2320-211-20-2-2	L26-9900
	TM 9-2320-211-20-3-1	L26-9915
	TM 9-2320-211-20-3-2	L26-9920
	TM 9-2320-211-20P	L26-4620
	TM 9-2320-211-34-1	L26-0210
	TM 9-2320-211-34-2-1	L26-0220
	TM 9-2320-211-34-2-2	L26-0230
	TM 9-2320-211-34-2-3	L26-0240
	TM 9-2320-211-34-2-4	L26-0250
	TM 9-2320-211-34P	L20-1420
	TM 9-2320-211-35	L20-2010
M923	LO 9-2320-272-12	L26-0830
M923A1	TM 55-2320-272-14-1	L26-XXXX
M923A2	TM 9-2320-272-10	L26-0780
M925	TM 9-2320-272-10-HR	L26-0770
M925A1	TM 9-2320-272-20-1	L26-0790
M925A2	TM 9-2320-272-20-2	L26-0800
M927A1	TM 9-2320-272-20P	L26-0990
M929	TM 9-2320-272-34-1	L26-0810
M929A1	TM 9-2320-272-34-2	L26-0820
M929A2	TM 9-2320-272-34P-1	L26-1000
	TM 9-2320-272-34P-2	L26-1010
	TM 9-2320-358-24&P	L26-5800
M127A2C	TM 9-2330-207-14	L21-3070
M128A2C	TM 9-2330-207-24P	L21-3080
M149	TM 9-2330-267-14&P	L20-1170

M149A1
M149A2

M151A2	LO 9-2320-218-12 TM 9-2320-218-10 TM 9-2320-218-10-HR TM 9-2320-218-20 TM 9-2320-218-20-1-1 TM 9-2320-218-20-1-2 TM 9-2320-218-20P TM 9-2320-218-34 TM 9-2320-218-34-1 TM 9-2320-218-34P	L20-5030 L26-2180 L26-XXXX L20-2120 L26-5320 L26-5330 L20-4480 L20-4410 L26-XXXX L20-4350	OB	NO REPLACE
M715	LO 9-2320-244-12 TM 9-2320-244-10 TM 9-2320-244-20 TM 9-2320-244-20P TM 9-2320-244-34 TM 9-2320-244-34P	L26-XXXX L26-XXXX L26-XXXX L26-9925 L26-XXXX L26-9930	OB	NO REPLACEMENT NO REPLACEMENT NO REPLACEMENT NO REPLACEMENT NO REPLACEMENT NO REPLACEMENT
M880	LO 9-2320-266-12 TM 9-2320-266-10 TM 9-2320-266-10-HR TM 9-2320-266-20 TM 9-2320-266-20P TM 9-2320-266-24P TM 9-2320-266-34 TM 9-2320-266-34P	L26-XXXX L26-9090 L26-XXXX L25-9100 L25-8640 L26-9995 L25-9110 L25-8650	OB	266-24P
M915A1 M915A2	TM 9-2320-283-12 TM 9-2320-283-10 TM 9-2320-283-10-HR TM 9-2320-283-20-1 TM 9-2320-283-20-2 TM 9-2320-283-20-3 TM 9-2320-283-20P TM 9-2320-283-24P TM 9-2320-283-34-1 TM 9-2320-283-34-2 TM 9-2320-283-34P	L26-1040 L26-1050 L26-1060 L26-2260 L26-2270 L26-2280 L26-1080 L26-9996 L26-2290 L26-7730 L26-2000	OB	283-24P 283-24P

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TOOL KIT UPDATE:

SUBJ: NSN 51-01-282-7373 SCREWDRIVER SET, CLUTCH TIP

1. This NSN was deleted from Kits 80013 and 80200 (Mech Tool Kits) because the item was discontinued without replacement.

Recomendation: Use current stock until exhausted.

POC: At SLC Mr. Juan Alamares DSN: 551-1925 or Comm: (805) 982-1925